



Mississippi

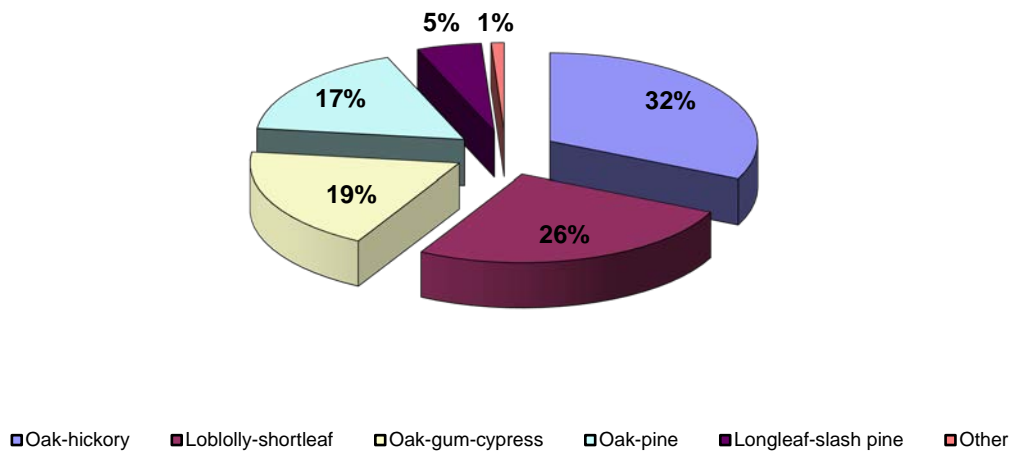
Forest Health Highlights 2015

The Resource

Mississippi's forests cover 19.9 million acres, more than 65% of the state's land area. Some 13.1 million acres of the states forested land is in non-industrial private ownership, while approximately 1.1 million acres are in national forests. Mississippi's forests are prized for their scenic beauty, supporting tourism and outdoor recreation and providing wildlife habitat throughout the state. Major forest types in the state include oak-hickory, loblolly and shortleaf pine, longleaf and slash pine, mixed oak-pine, and oak-gum-cypress.



Mississippi Forest Type Distribution



Mississippi Forest Health Highlights

Water Woes and Drought

Extreme precipitation patterns in Mississippi during 2015 led to an interesting mix of forest health problems associated with either too much or too little water. Many parts of the Mississippi River basin experienced near-record rainfall during late winter/early spring, causing very high river levels as late as mid-July in some stands. Flooding damage from prolonged inundation during the growing season apparently damaged an appreciable number of lowland water oaks and other hardwood species in these areas. Reports of hardwoods succumbing to this flooding, as well as signs and symptoms of subsequent ambrosia beetle and other wood borer attacks continue to come in from these areas.



In the other extreme, more than 56% of the land area in Mississippi is currently (as of 10/13/15) classified as “Severe” or “Extreme” drought conditions (droughtmonitor.unl.edu), with some parts of the State more than a foot of rainfall behind for the year, constituting the worst drought in nearly 100 years. Following a very wet winter and spring, rainfall became very scarce through the summer, creating dangerously dry conditions. The drought has begun to affect forest health in the state, with numerous drought-stressed pines succumbing to *Ips* attack.



Loblolly Pine Sawfly

Northeast Mississippi and northwest Alabama forests experienced a large loblolly pine sawfly (*Neodiprion taedae linearis* Ross) outbreak during spring and early summer of 2014 and again in 2015. The majority of the infestations occurred in Itawamba County, MS and Marion County, Alabama. The affected areas are estimated to encompass more than 10-15,000 acres of pine plantations in Mississippi and Alabama. The loblolly pine sawfly is one of the most severe important defoliators of pine in the central southern states. The larvae are capable of causing 100% defoliation, resulting in significant growth and vigor reductions, but rarely mortality. Stands that were 100% defoliated during both 2014 and 2015 were reported by local MFC personnel to experience light mortality. Landowners/foresters were instructed to assess tree vigor and growth to help determine a harvest timeline, as well as to keep a close eye on potential secondary bark beetle attack on trees stressed by 2 years of defoliation.



Redbay Ambrosia Beetle

The red bay ambrosia beetle was detected for the first time in Jackson County, MS in July, 2009. This insect carries the fungus that causes Laurel Wilt Disease. Since its introduction to the Southeast, it has caused considerable mortality to redbay, swamp bay, sassafras, avocado, and other species of trees and shrubs in the Lauraceae. Current distribution records indicate the disease is present from North Carolina to Florida on the east coast, as well as coastal Mississippi and Alabama. During the summer of 2011 the disease was also discovered in Marengo Co., AL (east of Meridian, MS). The infestation in Mississippi continues to expand, and is now present throughout the majority of Jackson Co., and portions of George and Harrison Counties in redbay, swamp bay, sassafras, as well as camphor tree. This year, the disease was also confirmed in Stone and Perry Counties. Collaborative research between MSSTATE, MFC, and the USDA Forest Service has led to the conclusion that the beetle was likely spread to Mississippi by human movement of infested materials from beetles along the Atlantic Coast of the U.S., rather than through a separate introduction through a local port. Initial research into cold tolerance suggests that redbay ambrosia beetle may be able to spread through sassafras trees well into southern Canada. Additional research is investigating the impacts of LWD on Palamedes swallowtail butterflies, and other invertebrate herbivores of the Lauraceae in North America.



Don't Move Firewood Campaign

The MS Forestry Commission continued to spread the word about the “Don't Move Firewood” campaign. MFC employees used promotional items at 31 venues across the state, which included SEC football games, MS State Fair, MS Wildlife Extravaganza in Jackson and the Garden and Patio show in Jackson.



Southern pine beetle (SPB) Prevention Program

The MFC, in cooperation with Mississippi State University (Mississippi State University Extension Service, Forestry and Wildlife Research Center, and Mississippi Agricultural and Forestry Experiment Station), and the USDA Forest Service Forest Health Protection Southern Region continues to administer a comprehensive SPB Prevention/Education Program to teach landowners about the benefits of thinning for the reduction of SPB hazard. In addition to the educational aspects of this program, there is an associated statewide cost-share program to assist landowners in getting the pre-commercial and 1st commercial thinning accomplished. Presently under the active grant years of 2013 – 2015, we have 6785 acres signed up for thinning, with a total of \$508,805 obligated in funds that will go to landowners after they have completed the thinning projects on their properties.



Kudzu

Kudzu is a non-native, invasive weed that aggressively spreads and out-competes desirable plants, including trees forests in the Southeast. A grant was awarded to the North Central MS RC&D to carry out this project in North MS. This project was funded in the amount of \$42,500 for a one year project in 2015 where the cost share covers 75% of the cost of treatment. The kudzu control took place in the following counties on private lands: Benton, Carroll, Desoto, Grenada, Lafayette, Marshall, Panola, Pontotoc, Tallahatchie, Tate, Tippah, Tishomingo, Union and Yalobusha.



Cogongrass

Cogongrass is a non-native, invasive plant that has been spreading aggressively in Mississippi in recent years. It takes over native grasses and vegetation and is a fire hazard under pine plantations. The severity and extent of infestations have increased considerably in the disturbed forests following hurricane Katrina in 2005. The MS Forestry Commission has been funded for several years by the USFS under their redesign grants to continue the fight against this invasive weed. To date (since 2010), we have treated **4175** acres for **2134** landowners, with **\$1,377,108** going directly for treatments for landowners. Under this program, there **is no cost** to landowners for this service. Presently, it is costing approximately \$330 per acre to treat cogongrass under this program.



Forest Health Assistance in Mississippi

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